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A FEW IMPORTANT MEDICINAL PLANTS OF ASSAM WITH HIGH COMMERCIAL VALUE



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A Bulletin on Medicinal Plants of Assam in English ‘A Few important Medicinal plants of Assam with high commercial value’

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The state of Assam as well as the whole North East India is known for its rich variety of medicinal plants. These plants have been used for many years by local people as natural remedies to heal different illnesses. The region's favorable climate, fertile soil and abundant rainfall support the growth of numerous plant species with therapeutic properties. For generations, indigenous communities have depended on these plants for treating common health problems, making them an important part of their culture and daily life. Assam cultivates a variety of medicinal plants, some of which have high commercial importance, as listed below.

1.Aloe vera (*Aloe barbadensis)*, is a thick, short-stemmed plant that stores water in its leaves. It is widely recognized for its diverse health-promoting, skin care and medicinal properties.

Chemical constituent

Aloe vera contains over 200 bioactive compounds, with the inner clear gel of the leaves containing the majority of these compounds.
They are phenolic acids
(274.5-307.5 mg/100 g),
flavonoids (3.63-4.70 g/kg),
polysaccharides (3.82-6.55 g/kg),
saponins, alkaloids, terpenoids,
and anthraquinone derivatives .



Market price:

Fresh leaf- Rs.4-12/kg

Table 1. Medicinal uses of *Aloe barbadensis*

Part	Medicinal uses	References
Aloe Juice	Skin care, dyspepsia, burns, colic, constipation, abdominal tumors, asthma and jaundice,	Joseph *et al*., 2010 Int. J. Pharm. Sci. Rev. Res., 4(2):106-110
Aloevera gel	Coughs, ulcers, diabetes, headaches, arthritis, constipation	Eshun *et al*., 2004 Crit. Rev. Food Sci. Nutr., 44(2):91-96

2. Andrographis paniculata commonly known as King of Bitters or kalmegh. It is an annual, branched, erect herb running half to one meter in height. The aerial parts, roots as well as the whole plant body is used as traditional medicine in China, India, Thailand and other Southeast Asian countries to treat many maladies.

Chemical constituent

The bioactive compounds like diterpenoids, lactones, diterpenes glycosides, flavonoids, polyphenols and flavonoid glycosides are major components of the plant body.

Market price: Powder - Rs.40/Kg

Table 2: Medicinal uses of A. paniculata

Parts	Medicinal uses	References
Whole Plant	Dysentery, malaria and respiratory infections	Jarukamjorn *et.al.*,2010; Eur. J. Pharm. Sci., 39(5):394-
Leaf	Fever, colic pain, loss of appetite	Poolsup et. al., 2004; J. Clin. Pharm. Ther., 29(1):37-45
Aerial part	Common cold, malaria, snakebite, urinary tract infection.	Saxena *et al*.,1998; Indian Drugs, 35:458-467
Root	Stomach and anthelmintic	Chopra R.N., 1980; Glossary of Indian Medicinal Plants, CSIR, New Delhi, p. 18.





3. Piper longum L. (Piperaceae), commonly known as **"long pepper".** Piper longum is a highly valuable drug and is one of the essential ingredients in the most of the compound preparations included in Ayurvedic literature.

Chemical Constituents

The primary constituents isolated from various parts of P. longum are piperine, piperlongumine, sylvatin, sesamin, diaeudesmin piperlonguminine, pipermonaline and piperundecalidine.

However, piperine is the major and active constituent of long pepper. The piperine content is 3-5% (on dry weight basis).



Market price :

Dried fruit Rs.1300/kg

Table 3. Medicinal uses of Piper longum

Part	Medicinal uses	References
Root	Heart diseases	Chauhan *et al*., 2011; Int. J. Res. Ayurveda Pharm., 2(1):157-
Fruits	Treat hiccough, fever, asthma, rheumatism	https://www.westbengalforest.gov.in/
Roots & fruits	Chronic bronchitis, palsy, gout; lumbago	https://www.westbengalforest.gov.in/

4. *Ocimum tenuiflorum* *commonly known as Holy Basil ,Tulsi.* It is known as "*The Incomparable One*", "*Mother Medicine of Nature*", and "*The Queen of Herbs*".



Chemical Constituents

HolyBasil leaf includes the compounds eugenol, rosmarinic acid, caryophyllene, ursolic and oleanolic acids (triterpenoic acids), carotenoids, Vitamin C, calcium, iron, zinc and chlorophyll.

Market price: Dry leaves- Rs 100/kg

Table 4. Medicinal uses of *Ocimum tenuiflorum*

Part	Medicinal uses	References
Leaf	Common cold, allergic rhinitis,cough,respiratory tract diseases	Bhattarai *et al*. 2024; Sci. world J., 2024, 8895039
Fresh flowers	Bronchitis	https://essentialherbs.com/
Whole plant	Diarrhea, nausea, and vomiting, and apply it topically for eczema and insect bites	https://essentialherbs.com/
Seed	Constipation, diarrhea, sore throats	Prakash and Gupta, 2005; Indian J. Physiol. Pharmacol., 49(2):125-131

5. *Houttuynia cordata* (Heart leaf) known as 'Musundari' a perennial herb, is a plant of the Saururaceae family. It prefers to grow in moist soil and warm environments. Leaves may be aromatic with a foul fishy odor if crushed.

Chemical Constituents



The chemical constituents isolated from *H. cordata are* volatile oils, alkaloids, flavonoids, and phenolic acids.

Market price: Fresh leaf – Rs. 20/bunch

Table 5. Medicinal uses of *Houttuynia cordata*

Part	**Medicinal uses**	**References**
Whole plant	Pneumonia, mumps, tumors	Rafiq et al., 2022; Pharmaceuticals, 15(9):1079-

6. *Rauvolfia serpentina* also known as Indian snakeroot or Sarpagandha is an endangered medicinal shrub which belongs to the *Apocynaceae* family. The Rauvolfia plant is an erect, evergreen and perennial shrub that attains a height of about 60 to 90 cm.

Chemical Constituents

Rauvolfia contains indole alkaloids,such as reserpine, serpentinine, ajmaline, ajmalicine,deserpidine, recinnamine and yohimbine.



R. serpentina root contain 0.7-3.0 % of total alkaloids and about 0.1% of the active principle reserpine which is an indole alkaloid, present in the root.

Market price: Dried root – Rs. 950/kg

Table 6. Medicinal uses of *Rauvolfia serpentina*

Part	***Medicinal uses***	***References***
Root	***Tuberculosis, wound healing, worm infestation and mental disorders***	**Kumar *et al.,2022*** ***J. Ethnopharmacol., 295:115327-***

7. *Withania somnifera* is commonly known as Ashwagandha . It is a small evergreen shrub with long tuberous roots that belong to the Solanaceae (nightshade) family of plants. The root of *Withania somnifera* is used as an adaptogen, diuretic, sedative, antioxidant and aphrodisiac. Other parts of the plant (leaves and fruits) used as a pain reliever, memory enhancer, anti-neoplastic agent, anti-microbial agent, and anti-inflammatory agent.



Chemical Constituents: The plant leaves are reported to contain 12 withanolides, condensed tannins, flavonoids, glycosides, and free amino acids; whereas, the roots contain alkaloids, steroids, volatile oils, and reducing sugars.

Market price: Dried roots – Rs 400/kg

Table 7: Medicinal uses of *Withania somnifera*is

Part	Medicinal uses	References
Roots	Blood pressure, insomnia anxiety, epilepsy etc	Mishra *et al*., 2000; Altern. Med. Rev., 5(4):334-346